TRANSPORTATION POOLED FUND PROGRAM
QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT

INSTRUCTIONS:
Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # *(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)* TPF-(206)	**Transportation Pooled Fund Program - Report Period:** ☐ Quarter 1 (January 1 – March 31) ☐ Quarter 2 (April 1 – June 30) ☑ Quarter 3 (July 1 – September 30) ☐ Quarter 4 (October 1 – December 31)	
Project Title: Program to Support the Development and Deployment of Cooperative Transportation Systems Applications		
Name of Project Manager(s): Catherine McGhee	**Phone Number:** 434-293-1973	**E-Mail** Cathy.McGhee@VDOT.Virginia.gov
Lead Agency Project ID: 97199/90712	**Other Project ID (i.e., contract #):** 133471-GS10961	**Project Start Date:** July 2009
Original Project End Date: June 2011	**Current Project End Date:** December 2014	**Number of Extensions:** 1

Project schedule status:

☑ On schedule ☐ On revised schedule ☐ Ahead of schedule ☐ Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Percentage of Work Completed to Date
$4,360,000	$2,370,455	59%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
N/A	$151,825	N/A

Project Description:

The pooled fund study entitled "Program to Support the Development and Deployment of Cooperative Transportation Systems Applications" was created by a group of state and local transportation agencies and FHWA in order to provide a means to conduct the work necessary for infrastructure providers to play a leading role in advancing the Cooperative Transportation Systems.

Objective:

Through a set of pooled fund studies, the Virginia Department of Transportation (VDOT) is working with federal, state and local departments of transportation, to establish a multi-phase program to facilitate the field demonstration, and deployment of Connected Transportation Systems infrastructure applications. In Phase I, the participants are focused on modeling, development, engineering and planning activities that will aid transportation agencies in justifying and promoting the large scale deployment of Connected Transportation Systems. Phase 2 of the program will continue research and development to prepare agencies to deploy connected vehicle environments.

Scope of Work:

The pooled fund study will focus on the following:
• Development and evaluation of Connected Transportation Systems large-scale system level operations applications
• Independently research and address issues that will affect the deployment of Connected Vehicle systems by state and local transportation agencies
• Support AASHTO's Strategic and Deployment Plans
• Support USDOT's Connected Vehicles Programs and initiatives

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

1. Pooled Fund Study Overall
   a. PFS monthly calls were held on July 24, August 28, and September 26.
   b. Face-to-face meeting planning
      i. Beckman Center, Irvine, CA on December 2-3
      ii. A draft agenda prepared and discussed.
   c. A modified PFS charter was prepared and approved.
   d. CV PFS contract modification between UVA and VDOT is being made.

2. PFS Dynamic Mobility Application Phase II
   a. Monthly calls were held on August 21 and September 18.
   b. Field testing both in CA and AZ testbeds is expected to happen by the end of this year.

3. Round 3 Research Program
   a. 5.9GHz Dedicated Short Range Communication Vehicle Based Road and Weather Condition Application
      i. Monthly calls were held on July 17, August 21 and September 18.

4. Round 4 Research Program
   a. Surveying/Mapping for CV Applications ($150,000 / 12 months)
      i. A final proposal was received from UC Riverside and approved through a conference call on August 11.
      ii. A contract procedure has been initiated.
   b. Tracking the Status of CV Testbeds ($50,000 / 12 months)
      i. A scope of work document was prepared, discussed and currently in review for PFS approval.

Anticipated work next quarter:

1. Pooled Fund Study Overall
   a. PFS monthly calls will be held in each month.
   b. CV PFS contract modification between UVA and VDOT will be finalized.
   c. A face-to-face meeting will be held in Irvine on Dec 2-3.

2. PFS Dynamic Mobility Application Phase II
   a. Will be conducted as planned.
   b. Field testing both in CA and AZ testbeds is expected to happen by the end of this year.

3. Round 3 Research Program
   a. 5.9GHz Dedicated Short Range Communication Vehicle Based Road and Weather Condition Application
      i. Monthly calls will continue.
      ii. Task3: Application Development – on-going as planned.
      iii. Task4: Application Installation and Testing – on-going as planned.

4. Round 4 Research Program
   a. Surveying/Mapping for CV Applications ($150,000 / 12 months)
      i. A contract will be established between UVA and UC Riverside.
      ii. Actual tasks will begin.
   b. Tracking the Status of CV Testbeds ($50,000 / 12 months)
      i. A scope of work document will be approved by CV PFS.
      ii. Actual tasks will begin.

Significant Results:

1. One round 3 project has been being conducted as planned.

2. Two projects were selected for the 4th round of research program and the necessary contracting procedure has initiated.

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

No problems have been encountered to date.

Potential Implementation:

The Multi-Modal Intelligent Traffic Signal System is being deployed in the testbeds in Arizona and California.